

CLAIMS:

1. A printing system, comprising:
an inkjet printhead configured to traverse bi-directionally over a
5 printzone printing one swath in a first direction, and a subsequent swath in a
second direction opposite the first direction, with the printhead rising to a
base temperature in response to a pre-warming signal prior to beginning
each swath;

10 a temperature sensor configured to monitor a temperature of the
printhead; and

a controller configured to generate the pre-warming signal in response
to an end of swath temperature monitored by the temperature sensor
following conclusion of printing the one swath.

15 2. The printing system of claim 1, wherein the controller is
configured to generate the pre-warming signal in response to a rule-based
system.

20 3. The printing system of claim 2, wherein the ruled-based system
sets the base temperature for printing the one swath at a first temperature,
and the base temperature for printing the subsequent swath at a second
temperature above the first temperature.

25 4. The printing system of claim 3, wherein the second temperature
is a fixed value.

5. The printing system of claim 4, wherein the fixed value is
0.5°-3.5°C.

30 6. The printing system of claim 4, wherein the fixed value is about
two degrees Celsius.

7. The printing system of claim 3, wherein the rule-based system allows the printhead temperature to drop to a third temperature below the first temperature prior to printing the subsequent swath.

5 8. The printing system of claim 7, wherein the controller is configured to generate the pre-warming signal to elevate the printhead temperature from the third temperature to the second temperature prior to printing the subsequent swath.

10 9. The printing system of claim 1, wherein the controller is configured to generate the pre-warming signal to set the base temperature for printing the one swath at a first temperature, and the base temperature for printing the subsequent swath at a second temperature above the first temperature, with the second temperature being a fixed value less than the
15 end of swath temperature for the one swath.

10. The printing system of claim 9, wherein the printhead temperature between printing the one swath and the subsequent swath is held at the second temperature prior to printing the subsequent swath.

20 11. The printing system of claim 9, wherein prior to printing the subsequent swath the printhead temperature is allowed to drop to a third temperature below the first temperature.

25 12. The printing system of claim 11, wherein prior to printing the subsequent swath, the controller is configured to generate the pre-warming signal to elevate the printhead temperature from the third temperature to the second temperature.

30 13. A printing system, comprising:
means for ejecting ink droplets bi-directionally over a printzone when printing one swath in a first direction, and a subsequent swath in a second direction opposite the first direction;

means for monitoring temperature of the means for ejecting; and
means for setting a base temperature prior to beginning a subsequent
swath in response to an end of swath temperature monitored by the means
for monitoring.

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14. The printing system of claim 13, wherein the means for setting
sets the base temperature for printing the one swath at a first temperature,
and the base temperature for printing the subsequent swath at a second
temperature above the first temperature, with the second temperature being a
fixed value less than the end of swath temperature for the one swath.

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15. The printing system of claim 14, further comprising means for
holding the printhead temperature between printing the one swath and the
subsequent swath at the second temperature prior to printing the subsequent
swath.

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16. The printing system of claim 14, wherein the printhead
temperature drops to a third temperature below the first temperature before
activation of the means for setting.

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17. The printing system of claim 16, wherein prior to printing the
subsequent swath, the means for setting elevates the printhead temperature
from the third temperature to the second temperature.

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18. A method for printing with an inkjet printhead bi-directionally
over a printzone by printing one swath in a first direction and a subsequent
swath in a second direction, comprising:

printing the one swath;

monitoring the temperature of the printhead;

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in response to a monitored end of swath temperature following
conclusion of printing the one print swath, changing the printhead
temperature to a base temperature prior to beginning printing of the
subsequent swath; and

printing the subsequent swath.

19. The method of claim 18, wherein the changing is conducted in accordance with a rule-based system.

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20. The method of claim 18, wherein the changing sets the base temperature for printing the one swath at a first temperature, and the base temperature for printing the subsequent swath at a second temperature above the first temperature.

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21. The method of claim 20, wherein the changing sets the base temperature for the one swath at a first temperature, and the base temperature for printing the subsequent swath at a second temperature above the first temperature.

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22. The method of claim 20, wherein the second temperature is a fixed value.

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23. The method of claim 20, further comprising allowing the printhead temperature to drop to a third temperature below the first temperature prior to printing the subsequent swath.

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24. The method of claim 23, wherein the changing comprises elevating the printhead temperature from the third temperature to the second temperature prior to printing the subsequent swath.

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25. An inkjet printing mechanism, comprising:
a carriage configured to traverse bi-directionally over a printzone;
an inkjet printhead supported by the carriage to print one swath in a first direction, and a subsequent swath at a second direction opposite the first direction, with the printhead rising to a base temperature in response to a pre-warming signal prior to beginning each swath;

a temperature sensor configured to monitor temperature of the printhead; and

a controller configured to generate the pre-warming signal in response to an end of swath temperature monitored by the temperature sensor

5 following conclusion of printing the one swath.

26. The inkjet printing mechanism of claim 25, wherein the controller generates the pre-warming signal to set the base temperature for printing the one swath at a first temperature, and the base temperature for
10 printing the subsequent swath at a second temperature above the first temperature, with the second temperature being a fixed value less than the end of swath temperature for the one swath.

27. The inkjet printing mechanism of claim 26, wherein the
15 printhead temperature between printing the one swath and the subsequent swath is held at the second temperature prior to printing the subsequent swath.

28. The inkjet printing mechanism of claim 26, wherein prior to
20 printing the subsequent swath the printhead temperature drops to a third temperature below the first temperature.

29. The inkjet printing mechanism of claim 28, wherein prior to
25 printing the subsequent swath, the controller generates the pre-warming signal to elevate the printhead temperature from the third temperature to the second temperature.